

## SECTION 9B

### CERAMIC TILE

1. APPLICABLE PUBLICATIONS: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1.1 American National Standards Institute, Inc. (ANSI) Standards:

A108.1-1976	Installation of Glazed Wall Tile, Ceramic Mosaic Tile, Quarry Tile and Paver Tile with Portland Cement Mortar
A108.5-1976	Installation of Ceramic Tile with Dry-Set Portland Cement Mortar or Latex-Portland Cement Mortar
A118.1-1976	Dry-Set Portland Cement Mortar
A137.1-1980	Ceramic Tile

2. SUBMITTALS:

2.1 Certificates of Compliance: Certificates of compliance indicating conformance with specified requirements shall be furnished for all tile. A master grade certificate shall be furnished for tile. Certificates of compliance shall be submitted in accordance with the SPECIAL PROVISIONS.

2.2 Samples: Samples of all tile and accessories shall be furnished for approval. Samples shall be of sufficient size to show color range, pattern, and tile type, as applicable.

3. DELIVERY AND STORAGE: Materials shall be delivered to the project site in manufacturer's original unopened containers with seals unbroken and labels and hallmarks intact. Materials shall be kept dry, protected from weather, and stored under cover.

4. ENVIRONMENTAL REQUIREMENTS: Ceramic tile work shall not be performed unless the ambient temperature is at least 50 degrees F. and rising. Temperature shall be maintained above 50 degrees F. while the work is being performed and for at least 3 days after completion of the work.

5. TILE:

5.1 Ceramic Tile: Tile shall be standard grade conforming to ANSI A137.1. Containers shall be grade sealed. Seals shall be marked to correspond with the marks on the signed master grade certificate.

5.1.1 Ceramic mosaic tile and trim shall be unglazed natural clay with cushion edges. Tile size shall be 2 by 2 inches in colors as indicated.

5.2 Accessories: Accessories shall be glazed wall base with matte glaze, cushion edged 4-1/4 by 4-1/4, color as indicated.

5.3 Marble Thresholds: Marble thresholds shall be of size required by drawings or conditions. Marble shall be Group A as classified by the Marble Institute of America. Marble shall have a fine-sand-rubbed finish and shall be white, pink, or gray in color as approved by the Contracting Officer.

6. MORTAR, GROUT, AND ADHESIVE shall conform to the following:

6.1 Dry-Set Portland Cement Mortar: ANSI A118.1.

7. PREPARATORY WORK AND WORKMANSHIP: Surface to receive tile shall be inspected and shall conform to the requirements to ANSI A108.1 for surface conditions for the type setting bed specified and for workmanship.

8. GENERAL INSTALLATION REQUIREMENTS: Tile work shall not be started until roughing in for mechanical and electrical work has been completed and tested, and built-in items requiring membrane waterproofing have been installed and tested. Tile in colors and patterns indicated shall be applied in the area shown on the drawings. Tile shall be installed with the respective surfaces in true even planes to the elevations and grades shown. Special shapes shall be provided as required for sills, jambs, recesses, offsets, external corners, and other conditions to provide a complete and neatly finished installation. Tile bases or coves shall be solidly backed with mortar.

8.1 Dry-Set Mortar: Dry-set mortar shall be used to install tile directly over properly cured, plane, clean concrete slabs in accordance with ANSI A108.5.

8.2 Installation of Marble Thresholds: Thresholds shall be installed where indicated in a manner similar to that of the ceramic tile floor. Thresholds shall be the full width of the opening. Head joints at ends shall not exceed 1/4 inch in width and shall be grouted full as specified for ceramic tile.

9. CONTROL JOINTS: Joints shall be formed as indicated and sealed as specified in SECTION: CALKING AND SEALANTS. Control joints shall also be provided where tile abuts restraining surfaces such as perimeter walls, curbs and columns.

10. CLEANING AND PROTECTING: Upon completion, tile surfaces shall be thoroughly cleaned in accordance with ANSI A108.1. Damaged or defective tiles shall be replaced.